# Xinya Du

Contact Assistant Professor

Department of Computer Science The University of Texas at Dallas

800 West Campbell Road, Richardson, TX 75080

RESEARCH INTERESTS Natural Language Processing, Computational Linguistics, Machine Learning, Deep Learning

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EDUCATION Cornell University Aug 2016 – Aug 2021

Ph.D. in Computer Science (M.S. degree granted in Aug 2019)

Dissertation: Towards More Intelligent Extraction of Information from Documents

Advisor: Claire Cardie

Shanghai Jiao Tong University Sep 2012 – Aug 2016

B.E. in Computer Science and Engineering

EXPERIENCE University of Texas at Dallas, Richardson, TX

Aug 2022 – Present

Assistant Professor in Computer Science

University of Illinois at Urbana-Champaign, Champaign, IL Sep 2021 – Aug 2022

Postdoctoral Research Associate, with Prof. Heng Ji

Google AI, Mountain View, CA May 2020 – Aug 2020

Research Intern

Allen Institute for Artificial Intelligence, Seattle, WA Sep 2018 – Dec 2018

Research Intern

Microsoft Research, Redmond, WA May 2018 – Aug 2018

Research Intern

SELECTED NSF CAREER award National Science Foundation, 2024

Awards& Honors

AAAI New Faculty Highlights AAAI, 2024

Amazon Research Award Amazon, 2023

Spotlight Rising Star in Data Science University of Chicago, 2021

Top 100 New Stars in Artificial Intelligence Baidu Scholar, 2020

Most Influential ACL Papers (15 each year) Paperdigest, 2017

National Scholarship (Top 1% students nationwide) SJTU, 2013

Publications Note:  $^{\dagger}$  indicates that I am a co-leading author.

[1] Large Language Models for Automated Open-domain Scientific Hypotheses

Discovery

Zonglin Yang, **Xinya Du**<sup> $\dagger$ </sup>, Junxian Li, Jie Zheng, Soujanya Poria, Erik Cambria In Findings of the Association for Computational Linguistics: (ACL), 2024.

[2] Language Models as Inductive Reasoners Zonglin Yang, Li Dong, Xinya Du<sup>†</sup>, Hao Cheng, Erik Cambria, Xiaodong Liu, Jianfeng Gao, Furu Wei In Conference of the European Chapter of the Association for Computational Linguistics (EACL), 2024.

# [3] QAEvent: Event Extraction as Question-Answer Pairs Generation Milind Choudhary, Xinya Du

In Findings of the Association for Computational Linguistics: (EACL), 2024.

# [4] Leveraging Structured Information for Explainable Multi-hop Question Answering and Reasoning

Ruosen Li, Xinya Du

In Findings of the Association for Computational Linguistics: (EMNLP), 2023.

# [5] Process of Elimination for Multiple Choice Reasoning

Chenkai Ma, Xinya Du

In Conference on Empirical Methods in Natural Language Processing (EMNLP), 2023.

### [6] Probing Representations for Document-level Event Extraction

Barry Wang, Xinya Du, Claire Cardie

In Findings of the Association for Computational Linguistics: (EMNLP), 2023.

### [7] Zero-Shot Classification by Logical Reasoning on Natural Language Explanations

Chi Han, Hengzhi Pei, Xinya Du, Heng Ji

In Findings of the Association for Computational Linguistics: (ACL), 2023.

# [8] Toward Consistent and Informative Event-Event Temporal Relation Extraction Xiaomeng Jin, Haoyang Wen, Xinya Du, Heng Ji

In MATCHING at Annual Meeting of the Association for Computational Linguistics (ACL), 2023.

# [9] End-to-end Case-Based Reasoning for Commonsense Knowledge Base Completion

Zonglin Yang, Xinya Du, Erik Cambria, Claire Cardie

In Conference of the European Chapter of the Association for Computational Linguistics (EACL), 2023.

## [10] Logical Entity Representation in Knowledge-Graphs for Differentiable Rule Learning

Chi Han, Qizheng He, Charles Yu, **Xinya Du**, Hanghang Tong, Heng Ji In International Conference on Learning Representations (ICLR), 2023.

# [11] Retrieval-Augmented Generative Question Answering for Event Argument Extraction

Xinya Du and Heng Ji

In Conference on Empirical Methods in Natural Language Processing (EMNLP), 2022.

## [12] Dynamic Global Memory for Document-level Argument Extraction Xinya Du, Sha Li, and Heng Ji

In Annual Meeting of the Association for Computational Linguistics (ACL), 2022.

### [13] Automatic Error Analysis for Document-level Information Extraction

Aliva Das, **Xinya Du**, Barry Wang, Kejian Shi, Jiayuan Gu, Thomas Porter, Claire Cardie In Annual Meeting of the Association for Computational Linguistics (ACL), 2022.

[14] RESIN-11: Schema-guided Event Prediction for 11 Newsworthy Scenarios Xinya Du, Zixuan Zhang, Sha Li, Heng Ji and the RESIN team In Conference of the North American Chapter of the Association for Computational Linguistics (NAACL): System Demonstrations, 2022.

# [15] Template Filling with Generative Transformers

Xinya Du, Alexander M. Rush, and Claire Cardie In Conference of the North American Chapter of the Association for Computational Linguistics (NAACL), 2021.

# [16] GRIT: Generative Role-filler Transformers for Document-level Event Entity Extraction

Xinya Du, Alexander M. Rush, and Claire Cardie In Conference of the European Chapter of the Association for Computational Linguistics (EACL), 2021.

- [17] Few-shot Intent Classification and Slot Filling with Retrieved Examples Dian Yu, Luheng He, Yuan Zhang, Xinya Du, Panupong Pasupat and Qi Li In Conference of the North American Chapter of the Association for Computational Linguistics (NAACL), 2021.
- [18] QA-Driven Zero-shot Slot Filling with Weak Supervision Pretraining Xinya Du, Luheng He, Qi Li, Dian Yu, Panupong Pasupat and Yuan Zhang In Annual Meeting of the Association for Computational Linguistics (ACL), 2021.
- [19] Event Extraction by Answering (Almost) Natural Questions Xinya Du and Claire Cardie In Conference on Empirical Methods in Natural Language Processing (EMNLP), 2020.
- [20] Improving Event Duration Prediction via Time-aware Pre-training Zonglin Yang, Xinya Du, Alexander M. Rush and Claire Cardie In Findings of the Association for Computational Linguistics: (EMNLP), 2020.
- [21] Document-Level Event Role Filler Extraction using Multi-Granularity Contextualized Encoding

Xinya Du and Claire Cardie
In Annual Meeting of the Association for Computational Linguistics (ACL), 2020.

[22] Leveraging Structured Metadata for Improving Question Answering on the Web

Xinya Du, Adam Fourney, Robert Sim, Claire Cardie, Paul Bennett and Ahmed Hassan Awadallah

In Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics (AACL/IJCNLP), 2020.

[23] Be Consistent! Improving Procedural Text Comprehension using Label Consistency

Xinya Du, Bhavana Dalvi, Niket Tandon, Antoine Bosselut, Wen-tau Yih, Peter Clark, Claire Cardie

In Conference of the North American Chapter of the Association for Computational Linguistics (NAACL), 2019.

[24] Harvesting Paragraph-Level Question-Answer Pairs from Wikipedia Xinya Du and Claire Cardie In Annual Meeting of the Association for Computational Linguistics (ACL), 2018.

### [25] Identifying Where to Focus in Reading Comprehension for Neural Question Generation

Xinya Du and Claire Cardie

In Conference on Empirical Methods in Natural Language Processing (EMNLP), 2017.

# [26] Learning to Ask: Neural Question Generation for Reading Comprehension Xinya Du, Junru Shao and Claire Cardie

In Annual Meeting of the Association for Computational Linguistics (ACL), 2017. **Featured in** New Scientist ("Inquisitive bot asks questions to test your understanding"), and TechRepublic ("How researchers trained one AI system to start asking its own questions").

## [27] Cornell Belief and Sentiment System at TAC 2016

Vlad Niculae, Kai Sun, Xilun Chen, Yao Cheng, **Xinya Du**, Esin Durmus, Arzoo Katiyar, Claire Cardie

In Text Analysis Conference (TAC), 2016.

# TEACHING EXPERIENCE

Natural Language Processing, Cornell University, Fall 2019

Teaching Assistant for Prof. Claire Cardie.

Natural Language Processing, Cornell University, Spring 2019 Teaching Assistant for Prof. Yoav Artzi.

Software Engineering, Cornell University, Spring 17, Spring 18 Teaching Assistant for Prof. William Arms.

Introduction to Computing Using Python, Cornell University, Fall 2016 Teaching Assistant for Prof. Walker White.

# MENTORING EXPERIENCE

Zonglin Yang, Cornell CS MEng student, 2020 – 2022.

Topic: Commonsense and case-based reasoning for NLP.

Publications: EMNLP (Findings), 2020.

Barry Wang, Cornell CS undergraduate student, 2021 – 2022

Topic: Automatic error analysis for information extraction.

Publications: ACL 2022, SciNLP 2021.

Aliva Das, Cornell CS undergraduate student, 2021 – 2022.

Topic: Automatic error analysis for information extraction.

Publications: ACL 2022, SciNLP 2021.

Maitreyi Chatterjee, Cornell CS undergraduate student, Spring 2021.

Topic: Applying neural document-level IE model to scientific domain.

Rishi Malhotra, Cornell CS undergraduate student, Spring 2021.

Topic: Applying neural document-level IE model to scientific domain.

## PROFESSIONAL Chairing:

Services

ACL Rolling Review (ARR) 2024

Annual Meeting of the Association for Computational Linguistics (ACL) 2023 (Area char of Information Extraction Track)

Natural Language Processing and Chinese Computing (NLPCC) 2023 (Area char of Question Answering Track)

LREC-COLING 2024 (Area char Information Extraction Track)

Conference of the North American Chapter of the Association for Computational Linguistics (NAACL) 2024 Website chair

#### Journal Reviewer:

IEEE Transactions on Knowledge and Data Engineering (TKDE)

IEEE Transactions on Audio, Speech and Language Processing (TASLP)

IEEE Transactions on Neural Networks and Learning Systems (TNNLS)

ACM Transactions on Asian and Low-Resource Language Information Processing (TAL-LIP)

ACM Transactions on Knowledge Discovery from Data (TKDD)

Knowledge and Information Systems (KAIS)

AI Communication

### Conference Committee Member:

Annual Meeting of the Association for Computational Linguistics (ACL)

Annual Conference on Neural Information Processing Systems (NeurIPS)

Conference on Empirical Methods in Natural Language Processing (EMNLP)

Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)

Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics (AACL/IJCNLP)

International Joint Conference on Artificial Intelligence (IJCAI)

AAAI Conference on Artificial Intelligence (AAAI)

Natural Language Processing and Chinese Computing (NLPCC)

Conference on Computational Natural Language Learning (CoNLL)

Workshop on Noisy User-generated Text (W-NUT)

Workshop on Machine Reading for Question Answering (MRQA)

Joint Conference on Lexical and Computational Semantics

### Volunteering and Other Activities:

Site host of North American Computational Linguistics Olympiad (NACLO) 2023.

Member of Cornell CS Department PhD Admission Committee (Year 2021).

Volunteer for Cornell CS Department PhD Visit Day (Year 2019, 2020, 2021).

Student Volunteer for ACL 2017, ACL 2018, EMNLP 2017.